



Advances in the Nonlinear Vibration and Structure Dynamics of Composite Materials

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Deadline for manuscript
submissions:

20 July 2024

Message from the Guest Editor

Dear Colleagues,

Composite materials have been widely used in various applications such as aerospace, marine, automotive structures and other industries due to their high strength and stiffness, extraordinarily low density, excellent environmental resistance and the ability to tailor properties. Many scholars have performed extensive and interesting studies on the nonlinear vibration and structure dynamics of various composite structures, including composite beams, plates and shells. Although some fantastic research breakthroughs have been obtained, there are great challenges in theoretical analysis, numerical simulation, and experimental tests. First, it is difficult to develop an accurate analytical model and a finite element model for predicting the nonlinear vibration phenomena and dynamic parameters of anisotropic materials and structures due to the complexity of geometric and material nonlinearities. Furthermore, experimental investigations on composite materials and structures are quite scarce.





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Message from the Editor-in-Chief

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